



CLEAN COPY OF ALL PENDING CLAIMS

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CLAIMS:

1. A two stage hydroprocessing process comprising:

a) reacting a feedstream in a first hydroprocessing stage in the presence of a hydrogen-containing treat gas, the first hydrotreating stage containing one or more reaction zones, each first stage reaction zone operated at first stage hydroprocessing conditions and in the presence of at least one first stage hydroprocessing catalyst, thereby resulting in a liquid product stream having a sulfur content less than about 3,000 wppm;

b) passing the liquid product stream of the first hydroprocessing stage to a first separation zone where a first vapor phase product stream and a first liquid phase product stream are produced;

c) reacting the first liquid phase product stream of b) in a second hydroprocessing stage in the presence of a hydrogen-containing treat gas, the second hydroprocessing stage containing one or more second stage reaction zones operated at second stage conditions wherein each second stage reaction zone contains at least one second stage hydroprocessing catalyst;

d) passing the second liquid product stream of step c) to a second separation zone wherein a second vapor phase stream and a second liquid phase stream are produced; and

e) collecting both the second vapor phase stream and the second liquid phase stream;

wherein at least one second stage hydroprocessing catalyst comprises a bulk multimetallic catalyst comprised of at

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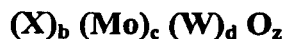


CLEAN COPY OF ALL PENDING CLAIMS (continued)

least one Group VIII non-noble metal and at least two Group VIB metals and wherein the ratio of Group VIB metal to Group VIII non-noble metal is from about 10:1 to about 1:10.

2. The process of claim 1 wherein said at least one Group VIII non-noble metal is selected from Ni and Co and said at least two Group VIB metals are selected from Mo and W.

3. The process of claim 1 wherein the bulk multimetallic is represented by the formula:



wherein X is a Group VIII non-noble metal, and the molar ratio of b: (c+d) is 0.5/1 to 3/1.

4. The process of claim 3 wherein the molar ratio of b:(c+d) is 0.75/1 to 1.5/1.

5. The process of claim 3 wherein the molar ratio of c:d is preferably >0.01/1.

6. The process of claim 1 wherein the bulk multimetallic catalyst is essentially an amorphous material having a unique X-ray diffraction pattern showing crystalline peaks at $d = 2.53$ Angstroms and $d = 1.70$ Angstroms.

7. The process of claim 1 wherein the bulk multimetallic catalyst also contains an acid function.

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